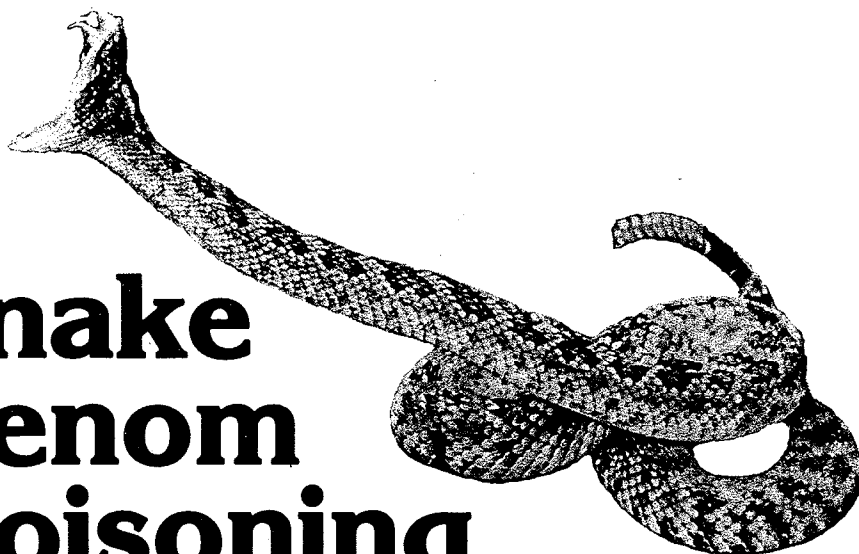


# **snake venom poisoning**



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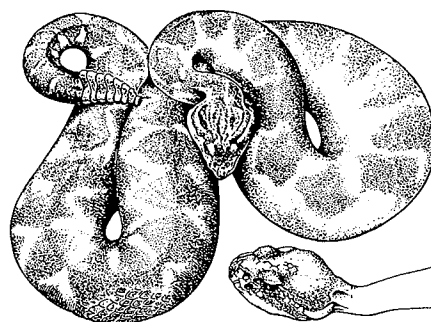
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# 3

## **identification and distribution of North American venomous snakes**



The venomous snakes of North America are members of the phylum Chordata, class Reptilia, order Squamata, suborder Serpentes, and families Crotalidae and Elapidae. Although some workers regard the vipers and pit vipers as subfamilies of the single family Viperidae, the author considers the separation into distinct families (Viperidae and Crotalidae) fully justified.

### ***Rattlesnakes, Copperheads, and Cottonmouths***

#### ***HISTORY***

The rattlesnake enjoys an ophidian history unequaled by any other serpent. Cleopatra had her asp, Eve had her satanic snake, and then there was M'Leod's boa and Cobra di capella, just to mention a few of the more notable reptilian characters of history. But none have enjoyed the notoriety of the snake with the "musical appendage," as early writers were prone to call it. First, its sonorous tail attracted naturalists, then its fangs and venom, pits, and its "maternal affection and the security offered to its young in its own bosom,"<sup>1</sup> a service it shared with other vipers.

Table 3-1. Snakes of the Family Crotalidae

Genus	Common Name	Characteristics	Range
<i>Agkistrodon</i>	Moccasins	No rattles; large plates on crown	North America, south-eastern Europe, and Asia
<i>Bothrops</i>	New World pit vipers	No rattles; small scales on crown; large scales ventral tail	Mexico to South America
<i>Crotalus</i>	Rattlesnakes	Rattles; small scales on crown	North, Central and South America
<i>Lachesis</i>	Bushmaster	No rattles; small scales on crown; small scales ventral tail	Central and South America
<i>Sistrurus</i>	Massasaugas and pygmy rattlesnakes	Rattles; large plates on crown	North America
<i>Trimeresurus</i>	Asiatic pit vipers	No rattles; small scales on crown	Asia

Crossbreeding between rattlesnake species occurs very rarely in nature, but Klauber notes three examples in snakes collected from the wild.<sup>2</sup> Inter-generic crossbreeding was considered by most herpetologists to be an impossibility until Bailey described a rattlesnake with characteristics of the eastern massasauga and the timber rattlesnake.<sup>22</sup> This snake was subsequently studied by Klauber,<sup>2</sup> and on the basis of body proportions, ventral plates, and other characteristics, the snake was believed to be a hybrid, as described by Bailey. Several other hybrids from the wild were described by Klauber.<sup>2</sup> One was a cross between an eastern diamondback and a canebrake, one between a southern Pacific and a red diamond. Klauber also noted one hybridization in captivity, a cross between a red diamond and a northern Pacific (Fig. 3-4), and one between a Mojave and an Aruba Island rattlesnake.<sup>2</sup>

A hybrid, wild-bred, of *C. scutulatus scutulatus* and *C. viridis lutosus*, in the University of Utah Museum was called to my attention by James L. Glenn,\* who also reminded me of a mating in captivity between *Agkistrodon contortrix laticinctus* and *C. horridus*, but there were no young.<sup>23</sup> Glenn also notes his experiences with intergrades (i.e., specimens from two subspecies), such as young from *C. viridis concolor* and *C. viridis lutosus*. At present, he is seeking to locate the intergrade zones.

Recently, I examined a hybrid from the wild, which appeared to be of southern Pacific and Mojave parentage. Matings between a northern blacktail

\*Glenn, J. L.: Personal communication, 1978.